In the Claims

Claims 1 – 10 (Cancelled)

11. (New) A process for improving a fingerprint image comprising:

normalizing an initial image;

determining a useful zone of the image;

cutting the image into a plurality of blocks;

calculating an FFT of each block;

determining frequencies of image blocks based on the FFT;

applying Gabor filters of parameters determined by the frequencies; and

determining orientations of the image based on filtered images derived from the Gabor filters.

12. (New) The process according to claim 11, wherein the blocks comprise overlapping zones.

13. (New) The process according to claim 11, wherein the frequencies of the blocks are determined by a highest frequency in a higher energy frequency band.

14. (New) The process according to claim 11, wherein determining frequencies of the image blocks further comprises evaluating relevance of the calculation of values of the frequencies.

15. (New) The process according to claim 11, wherein determining the orientations of the image further comprises evaluating relevance of calculation of the values of the orientations.

16. (New) The process according to claim 14, wherein, in case of irrelevance of one of the frequencies, a frequency is recalculated based on a function of the FFT.

17. (New) The process according to claim 16, wherein the irrelevance of one of the frequencies is assessed in relation to a predetermined threshold.

18. (New) The process according to claim 11, wherein orientation parameters of the Gabor filters are selected from the group consisting of 0°, 22.5°, 45°, 67.5°, 90°, 112.5°, 135° and 157.5°.

19. (New) The process according to claim 11, wherein determining orientations comprises:

reconstituting images based on Gabor filtering of the blocks;

calculating average intensity of each filtered image for zones of a predetermined size;

creating a new image of orientations containing orientation of a block of highest intensity;

creating a new quality image containing an intensity of the block of the highest intensity; and

filtering of the new quality image of the orientations.

20. (New) The process according to claim 11, further comprising creating a merged final image based on the orientations and binarization and skeletonization of the merged final image.